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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,253	03/19/2004	Thomas Lenzing	10191/3550	7490
26646	7590	07/14/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			ALLEN, ANDRE J	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/804,253	LENZING ET AL.	
	Examiner	Art Unit	
	Andre J. Allen	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3-19-04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegal (US 3673443) in view of Tincher (US 3592303).

Regarding claims 1, 3 and 11-13 Siegal teaches a housing surrounding the pressure sensor (fig. 1), a sensor diaphragm 64 for measuring pressure in at least one combustion chamber of an internal combustion engine (col. 6 lines 50-55), high pressure and temperature fluctuations occurring in the combustion chamber (col. 2 lines 20-30), and a heat shield 76 composed of a heat-conducting material (ceramic col. 3 line 58), the heat shield being situated upstream (fig.1) from the sensor diaphragm to dissipate heat to the housing surrounding the pressure sensor and reduce thermal shock wherein the heat shield is a material. (ceramic) that conducts heat.

Siegal however, does not teach a heat shield having the heat shield having orifices/slits. Tincher teaches a heat shield that has orifices 66. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Siegal with orifices within the heat shield as taught by Tincher for the purpose of providing a heat shield that offers protection regardless of the position of the element it is protecting (col. 1 lines 44-46 Tincher).

Regarding claim 2 Siegal teaches the orifices in the heat shield have a desired cross-section (figs. 1 and 1a).

Regarding claims 4-7 Siegal (US 3673443) does not teach the slits being bores having the form of at least one of (a) a polygon having at least three sides, the sides being one of straight and curved, and (b) an ellipsoid situated in a star shape tangentially. Tincher teaches the slits being bores 42 having the form of at least one of (a) a polygon having at least three sides, the sides being one of straight and curved, and (b) an ellipsoid situated in a star shape tangentially (fig. 1). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Siegal with slits being bores having the form of at least one of (a) a polygon having at least three sides, the sides being one of straight and curved, and (b) an ellipsoid situated in a star shape tangentially as taught by Tincher for the purpose of providing a heat shield that has simple assembly and offers protection against rapid deterioration and failure due to high temperatures.

Regarding claim 8 Siegal teaches an additional guard 80 having a pressure measuring channel 106 situated upstream from the heat shield 76.

Regarding claims 9 and 10 Siegal teaches the heat shield is in contact and is not in contact with the sensor diaphragm (direct and indirect contact) (fig.1).


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen, whose telephone number is 571-272-2174. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

André Allen  
Art Unit 2855



**William Oen**  
**Primary Examiner**